



Making a Visible Difference in Communities

A pollution prevention guide to improving hazardous material management procedures during extreme weather events

Developing procedures for minimizing hazardous materials releases during extreme weather events can reduce or even eliminate risks to human life and property and should be an integral part of a community's emergency management planning. Both residential and business communities subject to impacts from extreme weather events such as storm surge, sea level rise, and general flooding should take sustained actions to minimize the risks to people and property from hazardous materials releases. This includes using all available tools to reduce the potential for the release of hazardous materials like sludge, contaminated sediments and toxic chemicals. Having procedures in place is an effective short-term approach for reducing the immediate risks corresponding to extreme weather events, while a long-term solution (such as changes to zoning regulations and improving flood defenses) is developed and implemented.

Residential and business communities that are more resilient to hazardous materials releases can be better prepared for, withstand, and rapidly recover from disruption. These communities build self-sufficiency into their own planning process, and as such become more sustainable communities.

There are many benefits to minimizing hazardous materials risks; these include:

- Preventing loss of life and injury;
- Reducing hazardous materials contamination of homes and businesses;
- Reducing land contamination from materials carried by flood waters;
- Reducing business interruption and revenue loss;
- Reducing emergency response and disaster recovery costs.¹

(¹ Emergency response costs can be lowered significantly when emergency services such as fire and police services, hazardous materials incident response personnel, emergency medical personnel, disaster management personnel, and other related services and deployments are needed less.)

What can communities do?

- Develop and integrate mitigation actions that will prevent hazardous materials releases during extreme weather events into the local, regional and state plans (e.g., local and state hazard mitigation plans). Failing to take action now may result in preventable releases of hazardous materials into commercial and residential areas when the next flood occurs.

- Designate personnel to facilitate communication with the business community in flood vulnerable areas in order to: increase the involvement of business owners and operators in the development of local, regional, and state plans; and inform the business owners and operators about cost effective pollution prevention tools that will help facilities reduce the potential for hazardous releases during flood events.
- Encourage the use of EPA guidance developed to assist businesses in mitigating these risks. Collectively these documents provide information on good housekeeping practices for businesses; proper storage, handling, and disposal of hazardous materials and other toxics; tips on spill preparedness and prevention; information about employee training and quality control processes through development of an environmental management system; and energy and water efficiency recommendations. These references are available on “EPA for Businesses and Non-Profits” web page at: <http://www2.epa.gov/home/epa-businesses-and-non-profits>.
- Promote safety measures and business process changes, safer product substitutions, materials reuse, best management practices, and other business specific, sector, supply chain or cluster tools designed to reduce toxic substance production and potential exposure.
- Facilitate technical assistance to the business community, taking advantage of the unique expertise of community development, emergency management leaders (e.g., first responders), technical assistance providers (e.g., local universities, Manufacturing Extension Service, Non-Governmental Organizations) and other stakeholders with established networks.
- As part of the hazard mitigation planning process, engage commercial and industrial business representatives to participate in plan development and recommend that they consider potential toxic releases as they develop mitigation actions.
- Review existing available planning tools (e.g., building codes, zoning, and land-use plans), and evaluate how they can be used to mitigate hazardous materials risks.

Additional information concerning climate change can be found at:

<http://www3.epa.gov/climatechange/>. Please contact Joseph Bergstein at 212-637-3890 or Bergstein.Joseph@epa.gov for further information about EPA’s program for greening small business.